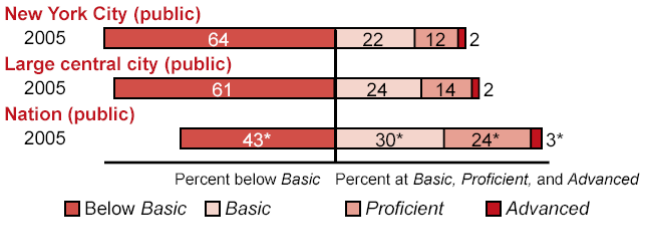
The National Assessment of Educational Progress (NAEP) assesses science in two major dimensions: Fields of Science (Earth, Physical, and Life) and Knowing and Doing Science (Conceptual Understanding, Scientific Investigation, and Practical Reasoning). The NAEP science scale ranges from 0 to 300. Scales are created separately for each grade. In 2005, New York City Public Schools was one of ten urban districts that voluntarily participated in the NAEP science assessment on a trial basis.

Overall Science Results for New York City

- In 2005, the average scale score for eighth-grade students in New York City was 128. This was lower than the average score in the nation (147).[1]
- New York City's average score (128) in 2005 was lower than that of public schools in large central cities (132).[2]
- The percentage of students in New York City who performed at or above the NAEP *Proficient* level was 14 percent in 2005. This percentage was not significantly different from that in large central cities (15 percent).
- The percentage of students in New York City who performed at or above the NAEP *Basic* level was 36 percent in 2005. This percentage was not significantly different from that in large central cities (39 percent).

Student Percentages at NAEP Achievement Levels



NOTE: The NAEP grade 8 science achievement levels correspond to the following scale points: Below *Basic*, 142 or lower; *Basic*, 143–169; *Proficient*, 170–207; *Advanced*, 208 or above.

Performance of NAEP Reporting Groups in New York City: 2005

Reporting groups	Percent of students[3]	Average score	Percent below *Basic*	Percent of students at or above *Basic*	Percent at or above *Proficient*	Percent *Advanced*
Male	51	128↓	65↑	35↓	15	2
Female	49	128	64	36	13	1
White	16↓	148↓	39↑	61↓	29	3
Black	34	118	77	23	6	#
Hispanic	35	122	73	27	8	#
Asian/Pacific Islander	14↑	148	40	60	32	6
American Indian/Alaska Native	#	‡	‡	‡	‡	‡
Eligible for free/reduced-price school lunch	84↑	125↑	69↓	31↑	12↑	1↑
Not eligible for free/reduced-price school lunch	12↓	153	35	65	31	4

Average Score Gaps Between Selected Groups

- In 2005, male students in New York City had an average score that was not significantly different from that of female students. In large central cities, the average score for male students was higher than that of female students by 3 points.
- In 2005, Black students had an average score that was lower than that of White students by 31 points. In large central cities, the average score for Black students was lower than that of White students by 39 points.
- In 2005, Hispanic students had an average score that was lower than that of White students by 27 points. In large central cities, the average score for Hispanic students was lower than that of White students by 35 points.
- In 2005, students who were eligible for free/reduced-price school lunch, an indicator of poverty, had an average score that was lower than that of students who were not eligible for free/reduced-price school lunch by 28 points. In large central cities, the average score for students who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 28 points.
- In 2005, the score gap between students at the 75th percentile and students at the 25th percentile was 52 points. In large central cities, the score gap between students at the 75th percentile and students at the 25th percentile was 50 points.

Science Scale Scores at Selected Percentiles

	Scale Score Distribution		
	25th Percentile	50th Percentile	75th Percentile
New York City	103	130	154
Large central city (public)	107	132	157
Nation (public)	124 *	150 *	172 *

Scores at selected percentiles on the NAEP science scale indicate how well students at lower, middle, and higher levels performed. For example, the data above show that 75 percent of students in public schools nationally scored below 172, while 75 percent of students in New York City scored below 154.

The estimate rounds to zero.
‡ Reporting standards not met.
* Significantly different from New York City.
↑ Significantly higher than large central cities. ↓ Significantly lower than large central cities.

[1] Comparisons (higher/lower/not different) are based on statistical tests. The .05 level was used for testing statistical significance. Comparisons across jurisdictions and comparisons with the nation or within a jurisdiction across years may be affected by differences in exclusion rates for students with disabilities (SD) and English language learners (ELL). The exclusion rates for SD and ELL in New York City Public Schools were 1 percent and 2 percent in 2005, respectively. Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.
[2] "Large central city" includes public schools located in large central cities (population 250,000 or more) within metropolitan statistical areas as defined by the federal Office of Management and Budget. It is not synonymous with "inner city."
[3] For comparison, non-White students comprised 77 percent of students in large central city public schools and 40 percent in public schools nationally. Also, students eligible for free/reduced-price school lunch comprised 62 percent of students in large central city public schools and 39 percent in public schools nationally.
NOTE: Detail may not sum to totals because of rounding and because the "Information not available" category for free/reduced-price school lunch and the "Unclassifed" category for race/ethnicity are not displayed. Visit http://nces.ed.gov/nationsreportcard/science/tuda.asp for additional results and detailed information.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Trial Urban District Science Assessment.